



SERVICE MANUAL



MODEL 339

DISMANTLING:

Pull off 4 control Knobs.

Remove bottom cover.

Remove two, 4BA nuts fixing bottom of chassis to partition.

Lift out chassis.

When replacing chassis make sure location studs enter holes in control panel.

ACCESS TO PANEL COPPER SIDE:

Remove 4 screws holding base plate to control bracket.

Remove 2 screws ("A" in FIG. 1) holding panel to base plate.

The panel together with control bracket may then be hinged open revealing copper side but leaving the power transistors screwed to base plate.

POWER TRANSISTORS:

When replacing TR5/TR6 or TR11/12 a matched pair must be used.

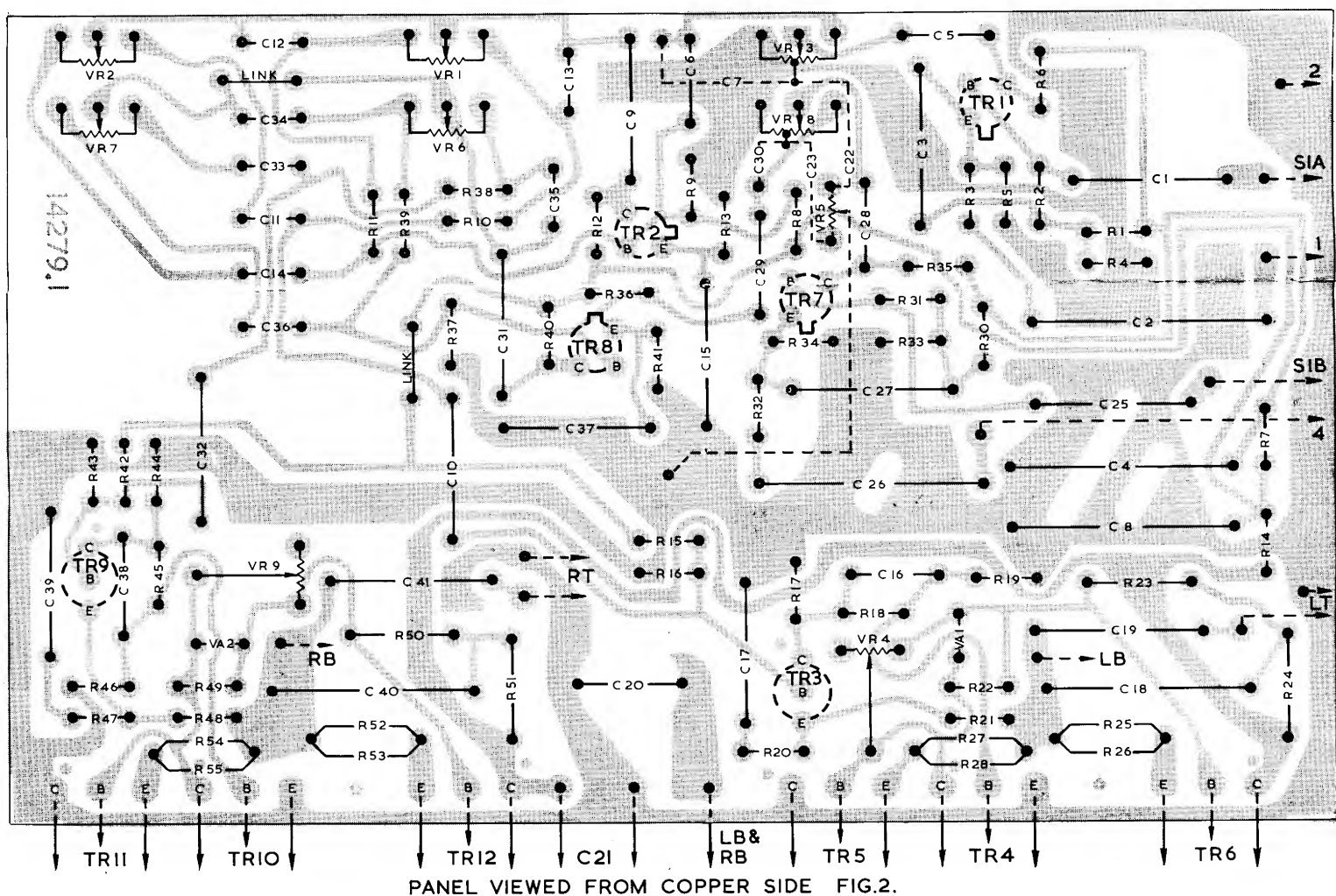
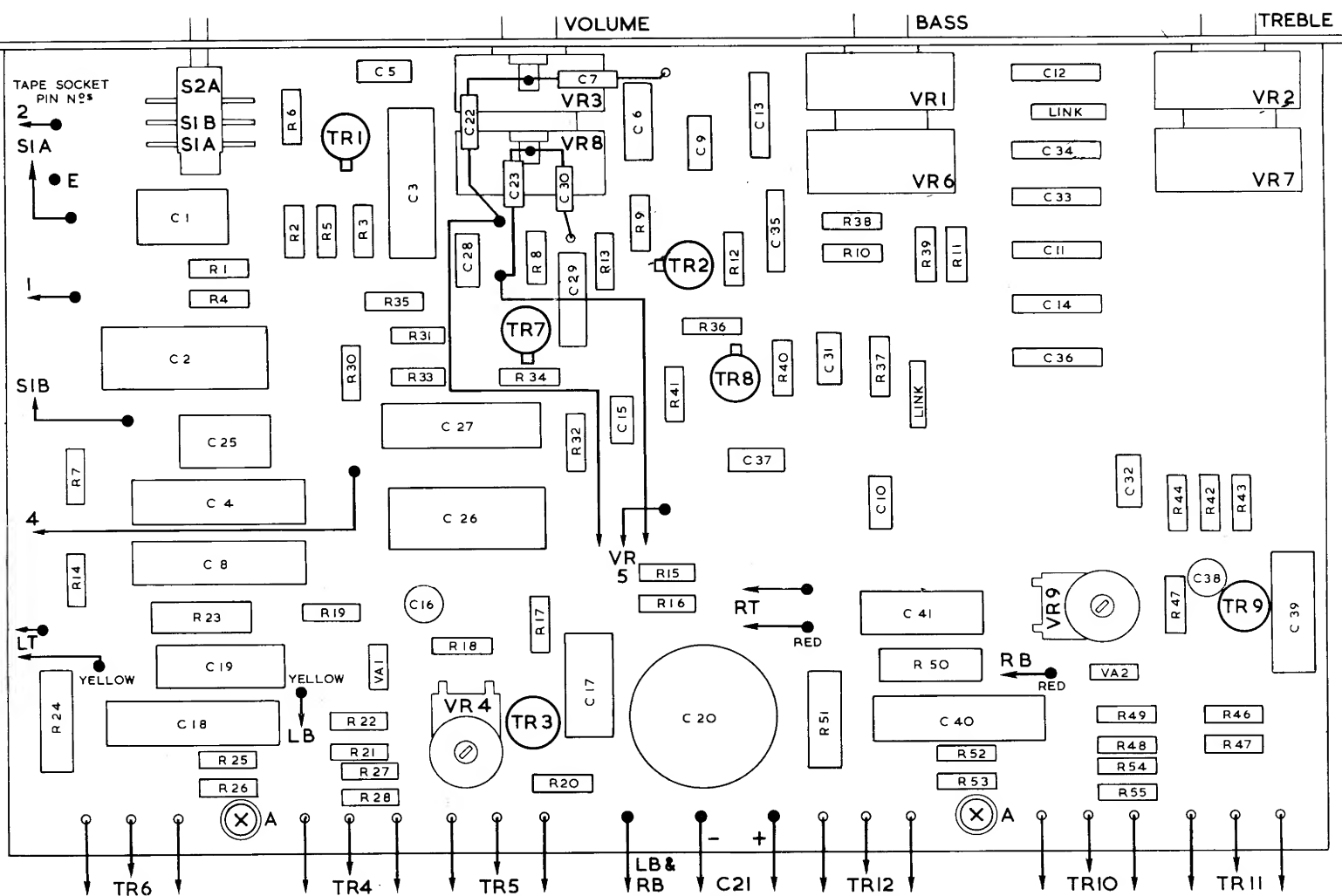
The transistor case is insulated from the chassis by a mica washer and two plastic bushes.

When replacing a transistor make sure the mica washer is not damaged. Apply heat sink compound to both sides of washer and screw down transistor evenly to make good thermal contact. Check that case is insulated from chassis.

ADJUSTMENTS:

Adjust VR4/VR9 to eliminate crossover distortion checking that TR5/TR11 collector current is not greater than 15mA.

If this current is greater than 15mA. modify to latest circuit.



All the following taken with balance set for equal outputs per channel at 10 KHz. and $\frac{1}{4}$ volume. 5 Ω res. load.

GAIN MEASUREMENTS:

With volume at max. and tone controls at mid position.

For 2 V. rms. output at 1 KHz. either channel.

With PU. disc. and generator applied to PU. lead 22 mV. rms.

With generator applied via 12 k Ω in series with .1 μ F to:—

| | |
|-------------------------------------|--------------|
| TR3/TR9 collector | 3 V. rms. |
| TR3/TR9 base (neg. side C10/C32) | 140 mV. rms. |
| TR2/TR8 collector (transistor case) | 4.2 V. rms. |
| TR1/TR7 " " " | 70 mV. rms. |

RESPONSE:

With generator applied to PU. lead.

HALF VOLUME RESPONSE:

Set base and treble for level response at max. volume then, reduce volume control so that 260 mV. rms. in gives 2 V. rms. output at 1 KHz.

The relative output at 100 Hz. should be \pm 8 db., and at 10 KHz. \pm 3.5 db.

TONE CONTROL VARIATION:

Set tone controls in mid position and volume at max.

Relative to an input to give 2 V. rms. output at 1 KHz. :—

At 100 Hz. the range of bass control should be 30 db.

At 10 KHz. " " treble " " " 20 db.

SPARE PARTS:

| ITEM | PART No. | ITEM | PART No. | ITEM | PART No. |
|--------------|------------------|-----------|------------------|------------------|------------------|
| Bottom cover | 14224 | T1 | 14130 | VR2, 7 | 14320 |
| Control Knob | 13860/P | Rectifier | 14135 | VR3, 8 | 14318 |
| Escutcheon | 14277 | S1, 2 | 14322 | VR5 | 11615 |
| Speaker | 14281 | S3 | 14323 | VR4/9 | 14118 |
| Tweeter | 14282 | VR1, 6 | 14320 | | |

CIRCUIT CHASSIS TYPE R.P. 4.

